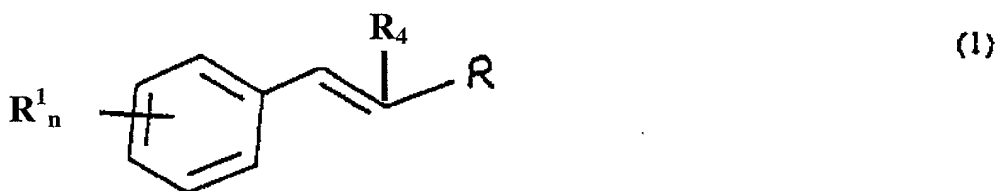


What is claimed is:

1. A method for providing a susceptible plant with increased resistance to pathological microorganisms, said method comprising:

5 administering to said plant a nonphytotoxic composition comprising an agent which increases accumulation of aromatic aldehydes in said plant or increases cinnamic acid in said plant, whereby at least one of growth and viability of a pathological microorganism which colonizes a surface or a part of said plant is impaired.

10 2. The method according to Claim 1, wherein said agent comprises at least one aromatic compound have the formula



15 wherein  $R$  represents  $-CHO$ ,  $CH_2OH$ ,  $-COOH$ , or  $-COOR_5$ ;  $n$  is an integer from 0 to 3; each  $R^1$  represents  $-OH$  or an organic substituent containing from 1 to 10 carbon atoms and from 0 to 5 heteroatoms, wherein the total number of carbon and heteroatoms in all  $R^1$  substituents of said compound is no more than 15; and  $R_4$  represents  $-H$  or an organic constituent containing from 1 to 10 carbon atoms; and  $R_5$  represent an organic substituent containing from 1 to 10 carbon atoms and from 0 to 5 heteroatoms.

20 3. The method according to Claim 1, wherein said administering is transforming said plant with a composition comprising a vector containing a nucleotide sequence encoding said agent, and wherein expression of said nucleotide sequence is controlled by a promoter functional in said plant.

4. The method according to Claim 3, wherein said nucleotide sequence is a DNA sequence.

25 5. The method according to Claim 3, wherein said nucleotide sequence is heterologous to said plant.

6. The method according to Claim 2, wherein said aromatic compound is one or more aromatic aldehydes selected from the group consisting of cinnamic aldehyde, alpha-hexyl cinnamic aldehyde and coniferyl aldehyde.

7. The method according to Claim 6, wherein said aromatic aldehyde is  
5 microencapsulated in a polymer.

8. The method according to Claim 7, wherein said polymer is beeswax or carnauba wax.

9. The method according to Claim 2, wherein said agent comprises a balsam.

10. The method according to Claim 9, wherein said balsam is derived from a  
*Liquidambar* tree.

11. The method according to Claim 10, wherein said *Liquidambar* tree is *Liquidambar orientalis* Miller or *Liquidambar styraciflua*.

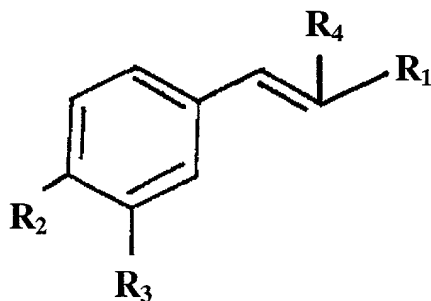
12. The method according to Claim 9, wherein said agent further comprises one or both of cinnamic aldehyde and alpha-hexyl cinnamic aldehyde.

13. A method for controlling growth of pathological organisms on a plant whereby the  
15 plant surface is provided with a nonphytotoxic composition comprising a balsam.

14. The method according to Claim 13, wherein said pathological organisms are aphids.

15. The method according to Claim 13 or 14, wherein said composition comprises a surfactant.

16. The method according to any one of Claims 13-15, wherein said composition  
20 further comprises one or more aromatic aldehydes having the formula



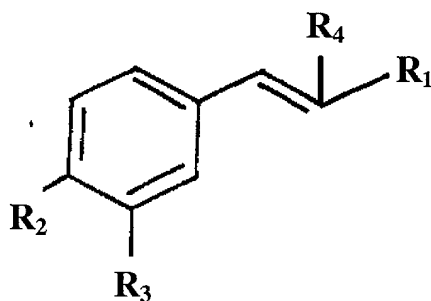
wherein R<sub>1</sub> represents -CHO, R<sub>2</sub> represents -H, -OH or an organic substituent containing from 1 to 10 carbon atoms, and R<sub>3</sub> represents -H, a methoxy group or organic substituent containing

from 1 to 10 carbon atoms, and  $R_4$  represents -H, or an organic substituent containing from 1 to 10 carbon atoms.

17. The method according to Claim 16, wherein said aromatic aldehyde is selected from the group consisting of cinnamic aldehyde, alpha-hexyl cinnamic aldehyde and coniferyl aldehyde.

18. A composition comprising a balsam in a formulation which is nonphytotoxic to plants, wherein the concentration of said balsam is sufficient to provide a mean disease control of about 70%.

19. The composition according to Claim 18, wherein said composition further comprises one or more aromatic aldehydes having the formula:



wherein  $R_1$  represents -CHO,  $R_2$  represents -H, -OH or an organic substituent containing from 1 to 10 carbon atoms, and  $R_3$  represents -H, a methoxy group or organic substituent containing from 1 to 10 carbon atoms, and  $R_4$  represents -H, or an organic substituent containing from 1 to 10 carbon atoms.

20. The composition according to Claim 19, wherein said aromatic aldehydes is selected from the group consisting of cinnamic aldehyde, alpha-hexyl cinnamic aldehyde and coniferyl aldehyde.

21. The composition according to Claim 16, wherein said formulation is an emulsion.